

Claims

1. An inhaler comprising a tubular body (1) defining a tubular air flow passage with a bendable section, preferably a U-shaped section comprising peripherally extending corrugations as a whirl chamber and means for supplying a dose of at least one active, inhalable, particulate substance into the flow passage and a cap (2), **characterised in** that the dose of the at least one active inhalable, particulate substance being placed in the cap (2) to be released from said cap substantially at the beginning of the corrugations in the intake direction.
2. An inhaler according to claim 1, **characterised in** that the cap (2) comprises at least one closed compartment (4) containing the active, inhalable, particulate substance, and that the tubular body (1) or said cap (2) comprises means for releasing and dispensing said at least one particulate substance by opening, breaking or piercing said at least one closed compartment (4).
3. An inhaler according to claim 2, **characterised in** that the cap (2) comprises at least one attachable part comprising at least one closed compartment (4) containing an active, inhalable, particulate substance.
4. An inhaler according to one of the claims 1-3, **characterised in** that the at least one closed compartment (4) is closed by means of a tear-off foil (10).
5. An inhaler according to claim 4, **characterised in** that the tear-off foil is composed of a laminate barrier foil.
6. An inhaler according to claim 5, **characterised in** that the laminate barrier foil is composed of a layer of aluminium covered by a layer of polypropylene on both sides.

7. An inhaler according to one or more of the claims 4-6, **characterised in** that the tear-off foil (10) is adapted to be removed after the at least one attachable part is attached to the cap (2).
- 5 8. An inhaler according to one of the claims 1-3, **characterised in** that the at least one closed compartment (4) is closed by means of a slidable element (12) with at least one hole, in which said slidable element (12) has a first and a second position, where said slidable element (12) in said first position is adapted to close said closed compartment (4), and in said second position is adapted to open said closed
10 compartment (4) by communicating said closed compartment (4) with said hole.
9. An inhaler according to claim 8, **characterised in** that the slidable element (12) comprises friction elements adapted to hold said slidable element (12) in the first position to provide some friction, while said slidable element (12) is moved
15 from said first position to the second position and fixate said slidable element (12) at said second position.
10. An inhaler according to one of the claims 1-3, **characterised in** that the closed compartment (4) is closed by a piercable foil, and that the tubular body (1) is
20 adapted to pierce said foil, when the cap (2) is attached to said tubular body (1).
11. An inhaler according to one of the claims 1-3, **characterised in** that the closed compartment (4) is closed by attaching the cap (2) to the tubular body (1) and bending said tubular body (1), and that said closed compartment (4) is opened by
25 unbending said tubular body (1).
12. An inhaler according to claim 11, **characterised by** means for keeping the tubular body (1) bent while not in use.
- 30 13. An inhaler according to one of the claims 1-3, **characterised in** that the closed compartment (4) is closed by providing means squeezing together a part of

the tubular body (1), said closed compartment (4) being opened by removing said means.

14. An inhaler according to one of the claims 1-3, **characterised in** that the closed compartment (4) comprises a tube-like body, in which one end is permanently closed, and the other end is adapted to be inserted into the tubular body (1), said closed compartment (4) being closed by means sticking a part of the walls of said tube-like body (1) together, said closed compartment (4) may be opened by supplying pressure to or pulling at said tube-like body (1).

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15. An inhaler according to one of the claims 1-3, **characterised in** that the at least one closed compartment (4) is closed by means of a rotating, slidable element with at least one hole, where said rotating, slidable element has a first and a second position, where said rotating, slidable element in said first position is adapted to close said closed compartment (4), and in said second position is adapted to open said closed compartment (4) by communicating said closed compartment with said hole.

16. An inhaler according to claim 15, **characterised in** that the rotating, slidable element comprises friction elements, and that said friction elements are adapted to hold said rotating, slidable element in the first position, to produce some friction while said rotating, slidable element is rotated from said first position to said second position and fixate said rotating, slidable element at said second position.

17. An inhaler according to one of the claims 1-3, **characterised in** that the cap (2) is constructed from a soft, squeezable material, that the closed compartment (4) is likewise constructed from a soft, squeezable material, and that said closed compartment is adapted to rupture, when pressure is applied to said cap (2).

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18. An inhaler according to claim 1, **characterised in** that the material of the closed compartment (4) is adapted in such a manner that when it ruptures, the material is not dispensed to the tubular body (1).
- 5 19. Multi-tube inhalator comprising one or more inhalators/inhalers according to one of the preceding claims, **characterised in** that the cap is adapted to accommodate two or more of the tubular bodies.
- 10 20. An inhaler according to claim 1, **characterised in** that the cap (2) comprises two closed compartments, each compartment containing a separate, inhalable particulate substance.

AMENDED CLAIMS

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original claims 1 – 20, replaced by amended claims 1 – 16]

1. An inhaler comprising a tubular body (1) defining a tubular air flow passage with a bendable preferably U-shaped section comprising peripherally extending corrugations as a whirl chamber, a cap (2) closing the ends of the tubular body and connecting said ends, said cap (2) having at least one closed compartment including a dose of at least one active inhalable particulate substance, wherein said tubular body or said cap (2) comprises means for releasing and dispensing said substance from said closed compartment into the tubular flow passage at the beginning of the corrugations in the intake direction by opening, breaking or piercing said closed compartment.
2. An inhaler according to claim 1, **characterised in** that the at least one closed compartment (4) is closed by means of a tear-off foil (10).
3. An inhaler according to claim 2, **characterised in** that the tear-off foil is composed of a laminate barrier foil.
4. An inhaler according to claim 3, **characterised in** that the laminate barrier foil is composed of a layer of aluminium covered by a layer of polypropylene on both sides.
5. An inhaler according to one or more of the claims 2-4, **characterised in** that the tear-off foil (10) is adapted to be removed after attaching an attachable part to the cap (2).
6. An inhaler according to claim 1, **characterised in** that the closed compartment (4) is closed by a piercable foil, and that the tubular body (1) is adapted to pierce said foil, when the cap (2) is attached to said tubular body (1).

7. An inhaler according to claim 1, **characterised in** that the closed compartment (4) is closed by attaching the cap (2) to the tubular body (1) and bending said tubular body (1), and that said closed compartment (4) is opened by unbending said tubular body (1).

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8. An inhaler according to claim 7, **characterised by** means for keeping the tubular body (1) bent while not in use.

9. An inhaler according to 1, **characterised in** that the closed compartment (4) is closed by providing means squeezing together a part of the tubular body (1), said closed compartment (4) being opened by removing said means.

10. An inhaler according to claim 1, **characterised in** that the closed compartment (4) comprises a tube-like body, in which one end is permanently closed, and the other end is adapted to be inserted into the tubular body (1), said closed compartment (4) being closed by means sticking a part of the walls of said tube-like body (1) together, said closed compartment (4) may be opened by a supplying pressure to or pulling at said tube-like body (1).

11. An inhaler according to claim 1, **characterised in** that the at least one closed compartment (4) is closed by means of a rotating, slidable element with at least one hole, where said rotating, slidable element has a first and a second position, and in said position is adapted to close said closed compartment (4), and in the second position is adapted to open said closed compartment (4) by communicating said closed compartment with said hole.

12. An inhaler according to claim 11, **characterised in** that the rotating, slidable element comprises friction elements, and that said friction elements are adapted to hold said rotating, slidable element in the first position, to produce some friction while said rotating, slidable element is rotated from said first position to said second position and fixate said rotating, slidable element at said second position.

13. An inhaler according to claim 1, **characterised in** that the cap (2) is constructed from a soft, squeezable material, that the closed compartment (4) is likewise constructed from a soft, squeezable material, and that said closed compartment is adapted to rupture, when a pressure is applied to said cap (2).

14. An inhaler according to claim 1, **characterised in** that the material of the closed compartment (4) is adapted in such a manner that when it ruptures, the material is not dispensed to the tubular body (1).

15. Multi-tube inhalator comprising one or more inhalators/inhalers according to one of the preceding claims, **characterised in** that the cap is adapted to accommodate two or more tubular bodies.

16. An inhaler according to claim 1, **characterised in** that the cap (2) comprises two closed compartments, each compartment containing a separate, inhalable particulate substance.